



INTEROFFICE MEMORANDUM



To: Chief Diane E. Urban
From: Public Safety Technology Committee
SUBJ: Body Worn Cameras & Digital Evidence
CT:
DATE: May 12th, 2014

BACKGROUND

The proliferation of smart phones has given citizens the power to record high quality video anywhere at any time. Video captured by citizens of public safety personnel often misses the key events that led up to the incident and this lack of this pre-event video creates the opportunity to misinterpret the facts of the situation. Adding body worn cameras as a public safety tool fills in this critical gap of time, helping tell the entire story while simultaneously reducing the threat of false claims against police departments.

As police departments evaluate body worn cameras and other digital evidence capture devices, they must also determine how they want to house and store this digital evidence. By storing digital evidence in a Digital Evidence Management System (DEMS), this creates a powerful hierarchy for access as well as logs who is viewing and exporting the data within the system. This validates that the evidence follows the strict right-to-know and need-to-know protocols and protects the data from unauthorized access.

In May of 2013, the Hayward Police Department began to evaluate both body worn cameras and DEMS, with the goal of identifying the best solution to fit the Department's needs.

ANALYSIS

To test these complex systems concurrently, a cross-departmental matrix was established which covered many different shifts and assignments. The goal was to expose both systems to as much real-world police work as possible over eight weeks. The officers who participated in the eight-week trial filled out surveys in which they evaluated their user experience, as well as the performance of the technology. The results were tabulated and shared at an end-user debrief consisting of the officers who participated in the trial. A discussion of the policy surrounding the use of body worn cameras was also thoroughly discussed. The results of the survey, debrief, and policy discussion were shared with the PSTC in October of 2013. Next, a comprehensive five-year financial model was built which analyzed various costs and replacement schedules between vendors.

At the conclusion of each week of the trial, the officers were required to fill out a brief survey outlining their experience with the body worn camera and DEMS. Audio quality, video quality, comfort, and durability were rated about equal across body worn camera vendors. VieVu was rated the highest for ease of use. Taser was rated the highest for versatility and video download. Wolfcom was rated the highest for night view and field of view. The best overall performance rating went to the Taser. Digging into the numbers a little deeper, Taser and VieVu were rated either one or two for each of the categories measured except field of view. Building on these findings, the end-user debriefs confirmed Taser as the preferred camera vendor followed by VieVu.

Regarding DEMS, Evidence.com outperformed Veripic in every measured category. The ease to categorize, upload, find, watch, and export the digital evidence using Evidence.com versus Veripic were confirmed in the user survey results and end-user debriefs.

Overall Strengths of Taser and Evidence.com:

- Pre-record buffer
The ability to capture video prior to hitting the record button provides that missing piece of the story that is often missing from the headlines. This feature is not offered by any vendor other than Taser.
- Flexible application
Taser's product can be adapted to be used in a variety of police functions. Taser offers both the Axon FLEX (multiple mounts) and the Axon BODY (center mass camera) to fit a variety of preferences and needs. By having multiple mounting options, as well as seamless smart phone integration, the officer is given tremendous flexibility on how to record and categorize video, which lines up with the unpredictable nature of law enforcement.
- Cost/time savings
The time spent at the end of an officer's shift uploading and categorizing digital evidence can add up quickly and become a drain on already tapped resources. Taser's docking station upload process into Evidence.com eliminates time (ultimately adding to overtime cost), whereas Veripic is considerably more time consuming as it relates to downloading and categorizing the evidence.

COST ANALYSIS

With the top two body worn camera vendors and top DEMS identified, a five-year financial model was created to properly evaluate the costs of each system. The model considers a wide range of costs, such as: how often the camera systems would need repair, the number of users accessing the systems, as well as data storage costs. The complete numbers and results are included with this memo along with five-year price quotes from Taser and VieVu.

Estimated Total Start-up Costs

Vendor	Cost
Taser	\$ 308,451.00

VieVu	\$ 297,500.00
Wolfcom	\$ 252,500.00
MPH	\$ 200,000.00

Estimated Total Five Year Costs (includes start-up costs and 1 replacement at year 2.5)

Vendor	Cost
Taser	\$ 781,014.00
VieVu	\$ 353,750.00
Wolfcom	\$ 262,250.00
MPH	\$ 245,000.00

Due to its cloud-based storage needs, Taser has the highest five-year cost followed by VieVu, Wolfcom, and then MPH. The other primary difference in costs between Taser and all of the other vendors is that with Taser's Evidence.com, the user pays a monthly fee for access to their data. With the other vendors, this data access cost is included in the start-up costs.

To accurately compare DEMS systems, an estimate of the time saved at the end of the officer's shift must be considered. One of the primary complaints about Veripic was the length of time that the officer would have to spend at the end of their shift uploading, categorizing, and attaching case IDs to digital evidence. A cost estimate of the savings of using Evidence.com is outlined below.

Yearly Cost Savings Estimate of using Evidence.com

Days camera used	156	156	156
Officer rate of pay \$/hrs	\$50	\$50	\$50
Hours spent at end of shift	1	.5	.25
Total camera users	150	150	150
Total yearly cost savings	\$1,170,0 00	\$585,00 0	\$292,50 0

RECOMMENDATION

Coupled together, Taser's Axon and Evidence.com worked seamlessly to provide the best end-to-end solution to meet the Department's needs and was the overwhelming vendor of choice by the officers involved in the evaluation as well as the PSTC.

The use of a phased-in approach is recommended for this technology. Positive momentum was created during the trial, and a phased-in approach would allow this technology to be deployed quickly, which would capitalize on this momentum. Further, from a fiscal standpoint, the current funds allocated to this project are not enough to cover the entire five-year cost of Taser's camera and DEMS solution.